

REMARKS

The First Office Action indicates that pending Claims 1-11 stand rejected as anticipated by U.S. Patent No. 5,974,454 to Apfel et al. ("Apfel"). Applicants have amended Claim 6 and have also added a new set of claims to further highlight the differences between the claimed invention and Apfel. Otherwise, for the reasons discussed herein, Applicants respectfully submit that the pending claims are all patentable over the cited art.

I. The Claimed Invention

Claims 1-7 are directed to an integrated data processing system that manages delivery of software products to target computers or other target processing units. Figure 1 below is a block diagram of an integrated data processing system according to various embodiments of the present invention. In Figure 1, all of the subsystems recited in any of Claims 1-7 are included, and connectors are provided that show how the various subsystems can be interrelated in one specific embodiment of the present invention. Other embodiments of the invention may have fewer elements and different connections.

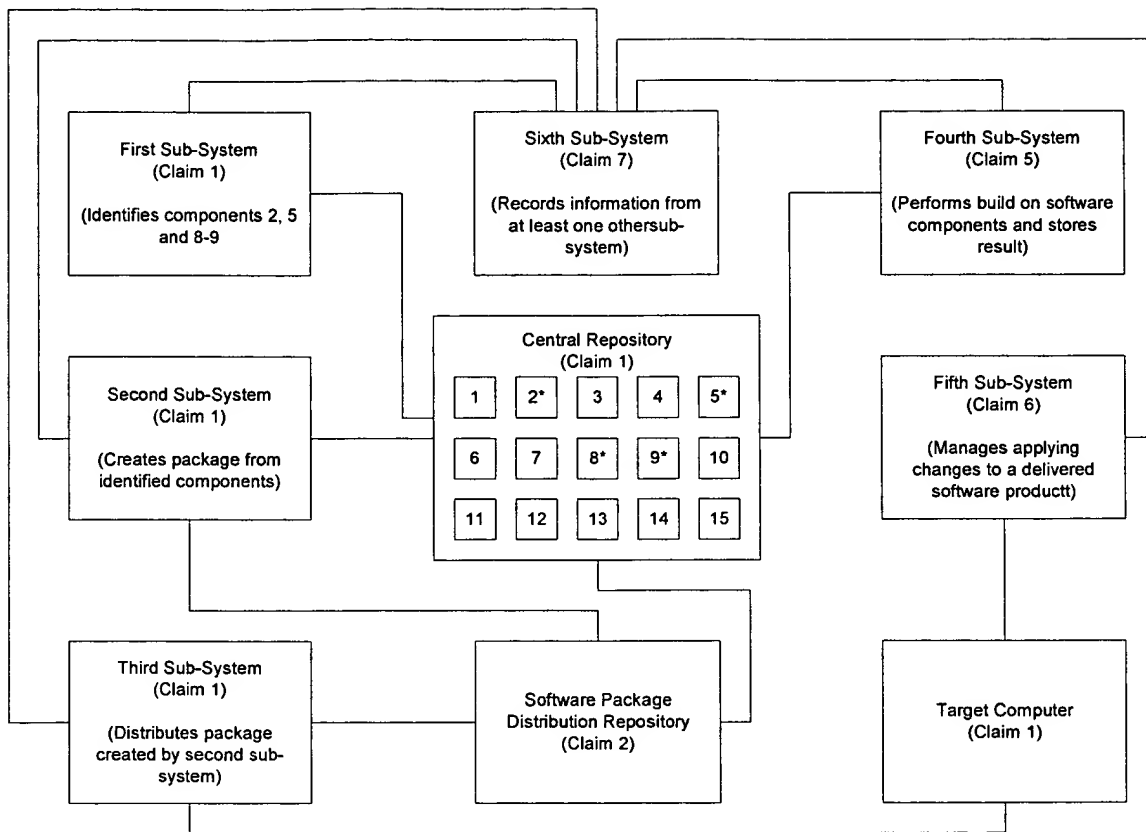


Figure 1

As shown in Figure 1, the integrated data processing system according to Claim 1 includes a Central Repository that stores the software components required for at least one software product. These components are illustrated in Figure 1 by the small numbered boxes included within the Central Repository. The integrated data processing system according to Claim 1 further includes a First Sub-System that is used to identify the software components within the Central Repository that are needed to build and/or deliver a target software product to a target end-user computer (or other execution unit). In the illustrated example of Figure 1, the First Sub-System has identified software components 2, 5, 8 and 9 (as indicated by the "*" included after each of these components in the Central Repository). The integrated data processing system according to Claim 1 further includes a Second Sub-System that creates one or more software product packages using the software components identified by the First Sub-System. In certain embodiments of the present invention (see Claim 2), the software product

package that is created by the Second Sub-System may be stored in a separate Software Package Distribution Repository (in other embodiments it may be stored in other locations such as, for example, the Central Repository). Finally, the integrated data processing system according to Claim 1 includes a Third Sub-System that distributes the software product package created by the Second Sub-System to the target end-user computer.

As is also shown in Figure 1 and discussed in Claim 5, in certain embodiments of the present invention, a Fourth Sub-System may be provided that performs a building process using at least some of the identified software components. The resulting components generated by the build process may then be stored in the Central Repository. In addition, in the embodiment of Claim 6, a Fifth Sub-System may be provided that manages the process of applying changes to software products that have already been delivered. Finally, in the embodiment of Claim 7, a Sixth Sub-System may be provided that records information provided by one or more of the other sub-systems.

II. The System of Apfel

In contrast to the integrated data processing system according to embodiments of the present invention, Apfel is directed to a method and system for updating software programs that are already resident on target computers. In the system of Apfel, a date on which an upgrade to a software program is expected to be available is stored in a registry on the target computer during the initial installation of the software program. About when that date arrives, the target computer may automatically contact a server over the internet to determine if an upgrade is in fact available. If it is, a process may then be initiated to install the upgrade on the target computer. Figure 2 below is an expanded picture of FIG. 3 of Apfel which shows more detail regarding the operation of Apfel based on the detailed description of Apfel. (*See Apfel at FIG. 3, Col. 2, lines 38-49, Col. 6, line 38 through Col. 7, line 9, Col. 9, lines 35-41*)

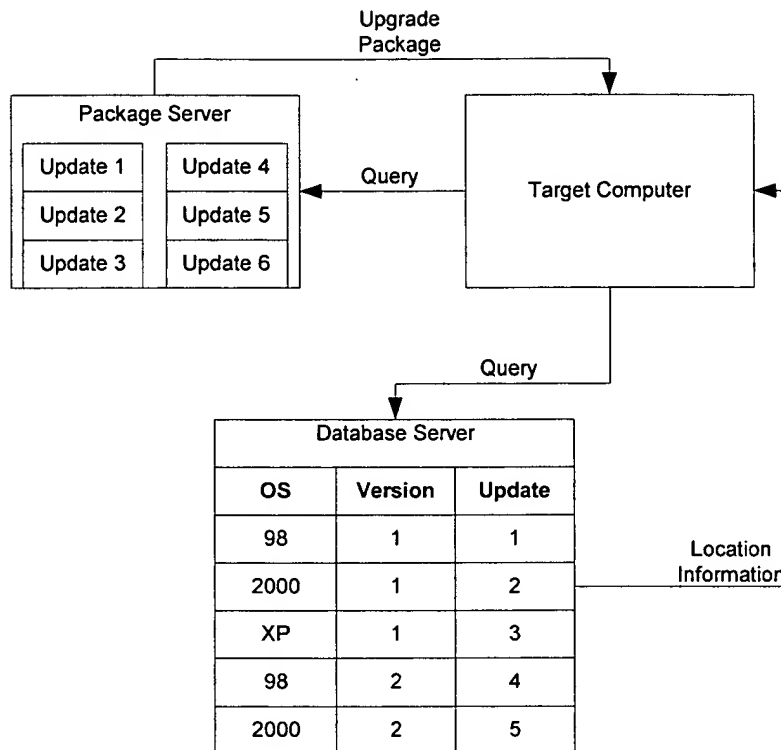


Figure 2

As shown in Figure 2, the system of Apfel uses a two server system to deliver a software update to a target computer. In particular, the target computer initiates the process by sending a query to a Database Server. This query provides the Database Server information regarding the target computer and the software/operating systems thereon along with a request for any available updates to a specific software package resident on the target computer. The Database Server conducts a search of a database resident on the Database Server to identify whether an upgrade is available and, if so, the location of the upgrade on a Package Server that stores and distributes software upgrades. The Database Server then sends this information back to the target computer. The target computer uses this information to send a second query to the Package Server requesting the specific update package identified as the appropriate package by the Database Server. The Package Server responds to this query by sending a self-installing upgrade package to the target computer that executes on the target computer to install the software upgrade.

III. Apfel Does Not Anticipate Claims 1-7

As noted above, independent Claim 1 stands rejected in the First Office Action as anticipated by Apfel. Claim 1 recites:

1. An integrated data processing system for managing a process of delivery of software products to target software product execution units in a network environment, comprising:

a central repository for storing software components of at least one software product;

a first sub-system for identifying within the central repository software components of a software product to be delivered;

a second sub-system for creating at least one software product package from the identified software components identified by the first sub-system, and

a third sub-system for distributing the at least one software product package created by the second sub-system to the target software product execution units.

The First Office Action states that the Package Server of Apfel comprises the Central Repository of Claim 1, and that the Database Server (and its associated database query and database lookup) constitute the First Sub-System of Claim 1. The First Office Action cites to Col. 9, lines 35-41 of Apfel as disclosing the Second Sub-System of Claim 1, and cites to the Package Server of Apfel as disclosing the Third Sub-System of Claim 1. Applicants respectfully submit that the First Office Action misreads Apfel in concluding that Apfel discloses or suggests the system of Claim 1.

As an initial matter, Apfel fails to disclose or suggest a "second sub-system for **creating at least one software product package from the identified software components** identified by the first sub-system." The portion of Apfel cited in the First Office Action simply indicates that a variety of different upgrade packages may be provided (i.e., on the Package Server) to account for the fact that different operating systems, different languages and different versions of the software application may require different upgrade packages. Accordingly, the Database Server keeps track of the plurality of different upgrade packages that are provided for each software application so that it can notify the target computer as to the location of the appropriate upgrade on the Package Server. Notably, it appears that the Database Server does nothing to "create . . .

[the] software product package" as does the Second Sub-System of Claim 1, let alone create such a software product package "from the . . . software components identified by the first sub-system." Instead the Database Server merely performs a database lookup operation. Accordingly, as Apfel fails to disclose or suggest the claimed Second Sub-System, the rejection of Claim 1 should be withdrawn for at least this reason.

Dependent Claims 2-7 are patentable over Apfel for at least the reasons that Claim 1 is patentable. In addition, the dependent claims include additional recitations that are not disclosed or suggested in Apfel. For example, Claim 2 adds the recitation that the integrated data processing system further includes a "software package distribution repository" that stores at least one of the software product packages that were created from the identified software components. The First Office Action cites to the Package Server of Apfel as disclosing this recitation. However, the First Office Action also cites to the Package Server of Apfel as comprising the Central Repository. Accordingly, the First Office Action is counting the same element of Apfel as comprising two separate and distinct aspects of the claimed invention. However, if the product updates stored in the Package Server of Apfel comprise "software components of at least one software package" as argued in the rejection of Claim 1, those same product updates cannot comprise "software product packages" that were created from the software components. As such, Claim 2 is independently patentable over Apfel for at least these additional reasons.

Claim 3 recites that the software product packages are distributed to execution units that belong "to at least one environment according to at least one role assigned to the at least one software product package by the second sub-system." As noted above, Apfel does not disclose or suggest the claimed second sub-system, let alone a sub-system that assigns roles to the software product packages. Accordingly, Claim 3 is independently patentable over Apfel for at least this additional reason.

Claim 5 recites a fourth sub-system that performs a building process on selected ones of the software code components. The First Office Action cites to Col. 9, lines 35-41, step 451 of Fig. 4B and Col. 10, lines 61-63 of Apfel as disclosing the recitations added by Claim 5. Applicants respectfully disagree with this finding. In particular, as noted above, the passage of Apfel at Col. 9, lines 35-41 simply states that a variety of different upgrade packages are

maintained (on the Package Server) and that the Database Server keeps track of the different available upgrades using a database of upgrade packages. This passage provides no teaching whatsoever that a fourth sub-system is provided or that a building process is performed on selected software code components. Likewise, step 451 of Fig. 4B and Col. 10, lines 61-63 of Apfel simply states that the upgrade package is downloaded to the computer. Once again, this has nothing to do with the recitations of Claim 5. Accordingly, Claim 5 also is independently patentable over Apfel for at least these additional reasons.

Claim 6 recites that the integrated data processing system includes a "fifth sub-system for managing a process of applying changes to an already delivered software product." The First Office Action cites to passages from Apfel that discuss how the system of Apfel may be used to provide an upgrade package to a target computer. However, as made clear by the amendment to Claim 6, the fifth sub-system of the present invention manages a process of applying changes to the software product package that is distributed by the third sub-system recited in Claim 1. Apfel does not disclose or suggest such a sub-system. Instead the upgrade package is delivered to the target computer and it either will or will not work – no sub-system is provided for managing the process of applying changes to the delivered product package. Accordingly, Claim 6 is also independently patentable over the cited art for at least these additional reasons.

IV. Claims 8-11 Are Patentable Apfel

Claim 8 is directed to a method for delivering software products. The First Office Action states that Claim 8 is rejected for the same reasons that Claim 1 is rejected. However, as discussed above, Apfel does not disclose or suggest creating at least one software product package that includes one or more identified software components that are stored in a central repository. If the First Office Action takes the position that the upgrade packages stored at the Package Server comprise the software components of Claim 8, then Apfel does not disclose or suggest creating a software product package from these software components. On the other hand, if the First Office Action takes the position that the upgrade packages correspond to the created software product package, then Apfel does not disclose or suggest storing a plurality of software components in a central repository. Accordingly, Applicants respectfully submit that Apfel does not anticipate Claim 8.

As noted in the First Office Action, Claims 9-11 are method claims that generally correspond to the systems of Claims 3, 2 and 5. Accordingly, Claims 9-11 are patentable for the reasons discussed above that Claims 3, 2 and 5 are patentable over Apfel.

V. New Claims 12-17 are Patentable Over Apfel

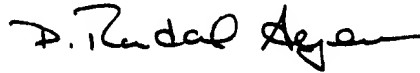
Applicants have added new Claims 12-17 to the present application. These claims are directed to methods of developing and installing a software product on a plurality of target computers which are not disclosed or suggested in Apfel.

In re: Barturen et al.
Serial No. 09/943,563
Filed: August 30, 2001
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VI. Conclusion

For the reasons discussed above, Applicants respectfully submit that the present application is in condition for allowance, which action is respectfully requested.

Sincerely,

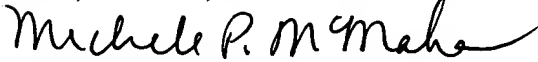


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